〈Transistor〉

ISC5804AT2

Low frequency Application
Silicon NPN Epitaxial Type

DESCRIPTION

2SC5804 is a super mini package resin sealed silicon NPN epitaxial transistor,
It is designed for low frequency application.
Since it is a super-thin flat lead type package,a high-density mounting are possible.
Complementary with 2SC3052.

FEATURE

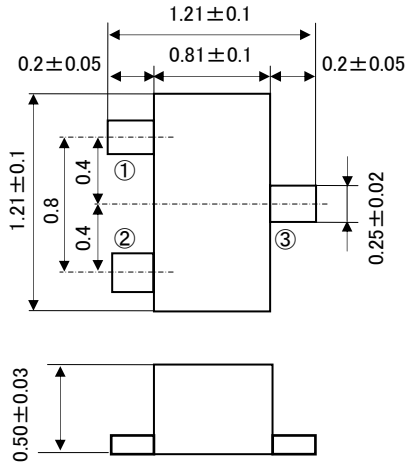
- Super-thin flat lead type package. t=0.45mm
- Excellent linearly of DC forward current gain.
- Low collector to emitter saturation voltage
  VCE(sat)=0.3V max (@Ic=100mA/IB=10mA)

APPLICATION

For hybrid IC,small type machine low frequency voltage amplify application.

OUTLINE DRAWING

Unit:mm

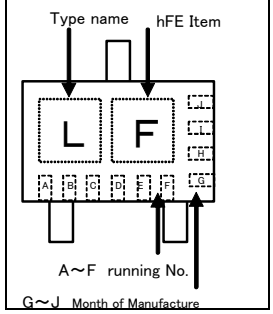


※The dimension tolerance is reference value.

JEITA:

Terminal Connector
①:Base
②:Emitter
③:Collector

Equivalent circuit



MAXIMUM RATING(Ta=25℃)

SYMBOL	PARAMETER	RATING	UNIT
VCBO	Collector to Base voltage	50	V
VEBO	Emitter to Base voltage	6	V
VCEO	Collector to Emitter voltage	50	V
IC	Collector current	150	mA
PC	Collector dissipation(Ta=25℃)	150(*)	mW
Tj	Junction temperature	+125	℃
Tstg	Storage temperature	-55～+125	℃

※package mounted on 9mm×19mm×1mm glass-epoxy substrate.

ELECTRICAL CHARACTERISTICS (Ta=25℃)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MIN	TYP
Collector to Emitter Breakdown voltage	V(BR)CEO	I_C=100μA, R_{BE}=∞	50	—	—	V
Collector cut off current	ICBO	V_{CB}=50V, I_E=0mA	–	–	0.1	μA
Emitter cut off current	IEBO	V_{EB}=6V, I_C=0mA	–	–	0.1	μA
DC forward current gain	hFE	V_{CE}=6V, I_C=1mA	150	※	800	–
DC forward current gain	hFE	V_{CE}=6V, I_C=0.1mA	90	–	–	–
C to E saturation voltage	VCE(sat)	I_C=100mA, I_B=10mA	–	–	0.3	v
Gain bandwidth product	fT	V_{CE}=6V, I_E=-10mA	–	200	–	MHz
Collector output capacitance	Cob	V_{CB}=6V, I_E=0mA,f=1MHz	–	2.5	–	pF
Noise figure	NF	V_{CE}=6V, I_E=-0.1mA,f=1kHz,RG=2kΩ	–	–	15	dB

※ It shows hFE classification in below table.

Item	E	F	G
hFE	150～300	250～500	400～800

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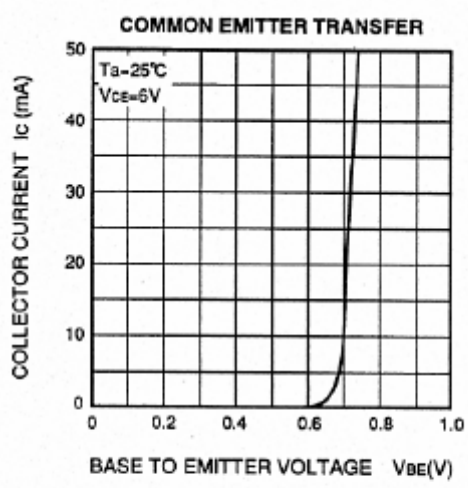

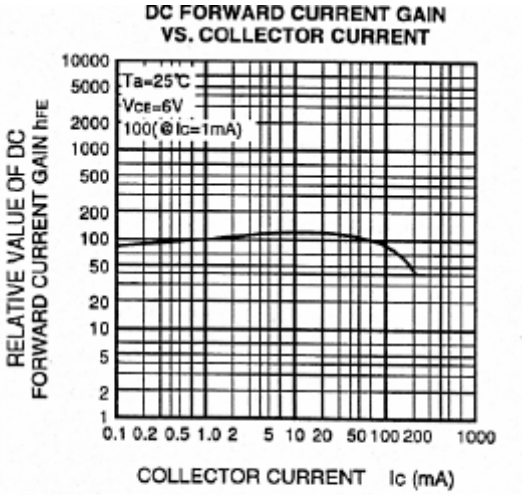

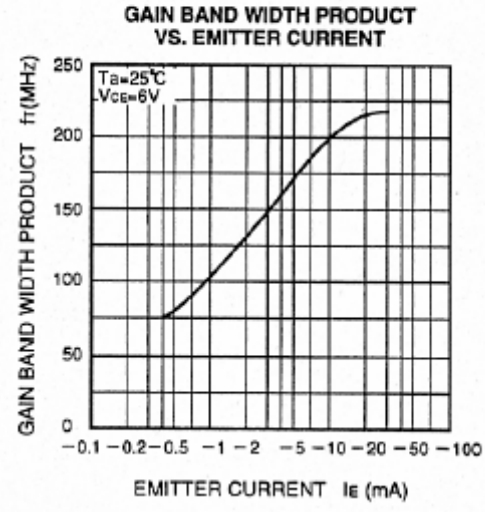

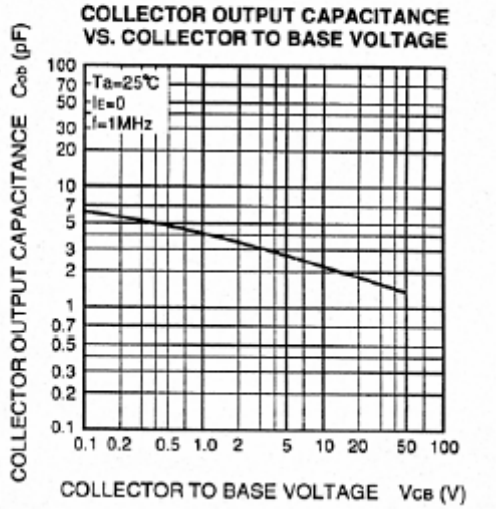

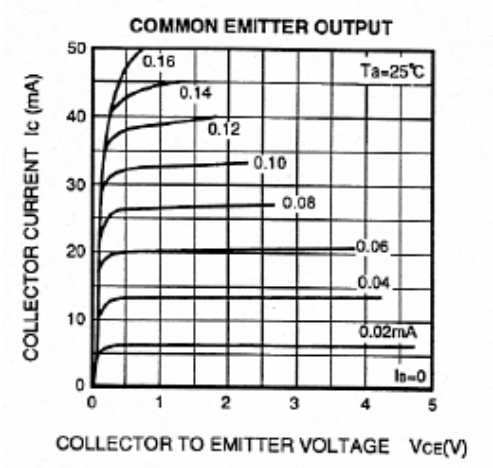

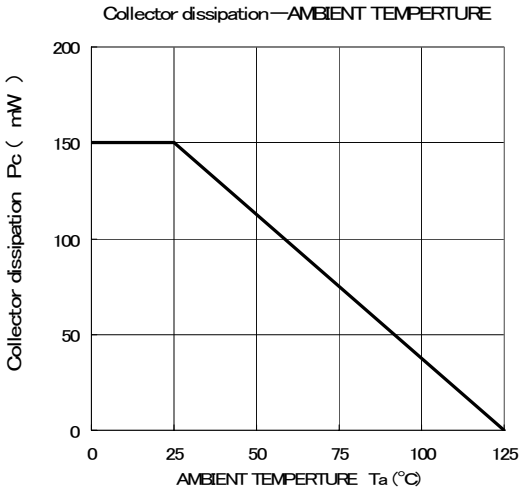

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